

ABSTRACT

A voraxial separation system having an auxiliary filter is disclosed for separating flowable composite media into components. The voraxial separation system receives a flowing stream of composite media and utilizes centrifugal force to separate the stream into component radial layers according to specific gravity whereafter one or more radial layers may be extracted from the stream. An auxiliary filtration apparatus includes a conduit having a flowable media input, a generally cylindrical filter disposed within the conduit, and filtered and unfiltered media outlets. An elongate spray tube is disposed within the tubular filter substantially adjacent to the radially inner surface of the filter. The spray tube is fluidly connected to a pressurized fluid source and defines a plurality of spray outlets disposed in a direction radially outward so as to direct pressurized fluid onto the cylindrical filter from the filter interior thereof to clean the filter of accumulated substances. A rotational drive system provides powered rotation of the spray tube, and a spectrophotometer assembly monitors the accumulation of component medium on the filter and adjusts rotation speed of the spray tube in response to filter loading.